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FY17

Postdoctoral Distinguished Performance

and

Mentor Awards

Postdoctoral Distinguished Performance Award

Established in 2001, the PDPA recognizes outstanding and unique contributions made by Laboratory postdoctoral researchers. These contributions result in a positive and significant impact on the Laboratory's scientific efforts and status in the scientific community. These awards also recognize outstanding creativity, innovation, and/or dedication as well as a level of performance substantially beyond that which would normally be expected.

FY17 Postdoctoral Distinguished Performance Award Recipients

Charlotte Grossiord, EES-14

Xiaowei He, MPA-CINT

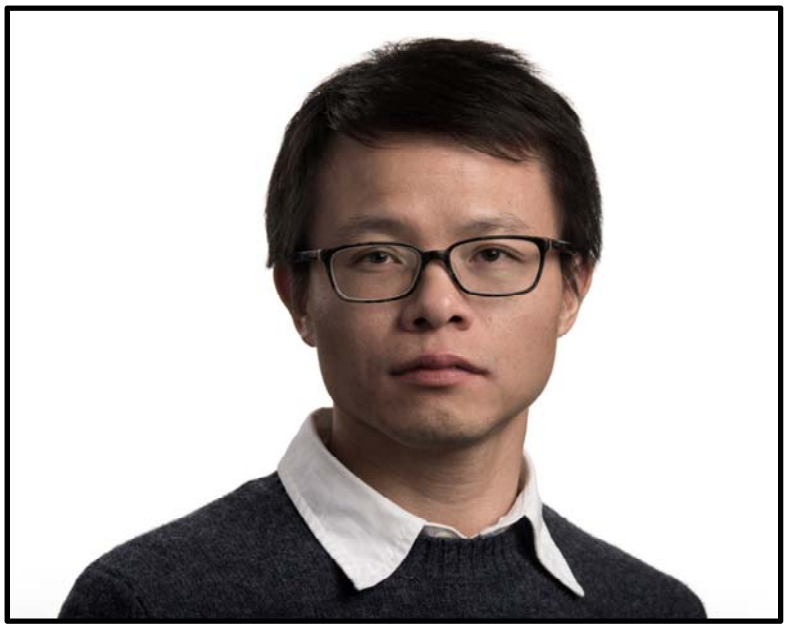
Cameron Moore, C-IIAC

Deepesh Poudel, RP-SVS Honorable Mention

Charlotte Grossiord, EES-14

Charlotte Grossiord is recognized for outstanding research and leadership in understanding vegetation's ability to adjust in response to environmental change. Charlotte's work could potentially have a large impact on predictions of vegetation responses to environmental change. Up until this point, the acclimation capacity of plants to environmental changes has been completely absent from dynamic vegetation models. Despite the challenges in quantifying these changes because of the longevity of trees compared to the human life time, Charlotte has invented several clever ways of utilizing the Los Alamos Plant Survival and Mortality (SUMO) experiment. Charlotte's research has addressed plant acclimation capacity and the time frames of acclimation, as well as testing for interactions between different pressures resulting from drought and warming that could alter plant responses to environmental change. In 2017, Charlotte published seven peer-reviewed articles, with seven other papers in review. This number of publications is exceptional in the field of ecosystem sciences, where experimental work tends to take years and publishing rates stay usually at 1-2 papers per year. In addition to the enormous amount of publications in 2017, Charlotte planned and performed the world's first experiment where changes in soil nitrogen availability and plant nitrogen use were linked to plant acclimation capacity to climatic warming and drought at an ecosystem-scale. Charlotte's work is building a basis for modeling plant's acclimation and testing that is supporting the Los Alamos mission for increasing our power to predict impacts of climate change on vegetation and the environment.

Charlotte earned degrees in Biology, including M.S. and Ph.D. from University of Lorraine.
Charlotte is mentored by Chonggang Xu, Brent Newman, & Sanna Sevanto and was nominated for this award by Sanna Sevanto.



Xiaowei He, MPA-CINT

Xiaowei He is recognized for his outstanding research and leadership in developing a new class of carbon nanotubes. These carbon nanotubes are the first material ever to act as a single photon source operating at room temperature, and emitting light at the infrared wavelength compatible with telecommunications infrastructure. This breakthrough development is of tremendous importance for advancing nanotubes as quantum light sources required for quantum information processing, quantum cryptography, quantum metrology, and fundamental studies of quantum photonics. In developing the carbon nanotubes, Dr. He demonstrated outstanding capabilities in spectroscopic characterization of nanomaterials, nanomaterials chemical modification, processing, and device development, combined with an exceptional work ethic. His body of work at LANL will have a profound impact on diverse areas of research and it opens new directions in the fields of nanoscience, solitary dopant optoelectronics, and quantum information technologies. Furthermore, his efforts are adding new directions to, and further strengthening, the LANL nanotube program, as well as opening new program opportunities relevant to a broad LANL mission space.

Xiaowei earned degrees including B.S. in Chemistry from China University of Geosciences, and M.S. in Physics, from Peking University, as well as Ph.D. in Applied Physics from Rice University.
Xiaowei is mentored Stephen Doorn & Han Htoon, who also nominated him for this award.

Cameron Moore, C-IIAC

Cameron Moore is recognized for his exemplary work studying molecules and catalysts to perform transformations for sustainable energy applications, particularly with relevance to biomass conversions. Cameron was the sole driving force for the development of a new and highly promising research area to use bio-derived building blocks to rationally construct more complex molecules. He was able to not only experimentally validate his approach, but also to perform suitable scale-up experiments, which is a non-trivial challenge in this field of research. In addition, he was able to extend his scientific approach to ethanol, allowing for the dehydrogenation of the molecule without the need for external hydrogen – which has often been considered the Achilles Heel of biomass conversion. Another key area of impact of Cameron's work is his contribution to the development of new catalysts for the hydrodeoxygenation reaction which is broadly accepted as the most energy intensive step in biomass conversion. Cameron's ingenuity and diligence allowed for the incorporation of new catalytic schemes, resulting in a 100X improvement over the initial process. Cameron has contributed thus to various energy programs funded by EERE, BETO and other sponsors. For a postdoctoral fellow to contribute to basic and applied research, combine experimental and theoretical strategies to real world problems and demonstrate true solutions to complex problems is non-trivial! Cameron has managed to excel at LANL, and his excellent publication record, awards and honors are a true testament to that as well. His mentor refers to him as the "best postdoctoral fellow he has ever mentored". All of his letters from external collaborators and researchers also speak highly to his performance, his innovation, and his genius.

Cameron earned degrees in Chemistry, including B.S. from Western Washington University and Ph.D. from University of Michigan. Cameron is mentored by Andrew Sutton who also nominated him for this award.

Deepesh Poudel, RP-SVS

Honorable Mention

Deepesh Poudel is recognized for his outstanding research and leadership in developing biokinetic models of actinides in humans. His research addresses the important topic of modeling the transport of radioactive materials within wounds, an under-recognized area at the Laboratory with historical resonance with past LANL activities. The quality and quantity of work produced by Dr. Poudel, both in publications and in research, far exceeds the expectations for a first-year postdoc. He has made substantial contributions to the field of internal dosimetry, and has established himself as a leading experts in the larger field of radioactively-contaminated wounds, as evidenced by his extensive collaborations here at the Laboratory as well as around the country and in Europe. Deepesh's recent accomplishments in this area are convincing evidence that he is a promising scientist that will continue to excel as a leader in the field of internal dosimetry.

Deepesh earned degrees including B.S and M.S. in Health Physics and Ph.D. in Nuclear Science and Engineering from Idaho State University.

Deepesh is mentored by John Klumpp and Tom Waters and was nominated for this award by John Klumpp and Luiz Bertelli.

Previous Award Recipients

FY16
Maryline Ferrier, C-IIAC
Alex Zylstra, P-24
Honorable Mention
Thomas Myers, M-7

FY15
Ludmil Alexandrov, T-6/T-CNLS
Kendra Van Buren, XCP-8

FY14
Gia-Wei Chern, T-4/T-CNLS
Xuedan Ma, MPA-CINT

FY13
Adolfo del Campo, T-4
Nina Lanza, ISR-2
Shijian Zheng, MPA-CINT

FY12
Krzysztof Gofryk, MST-6
Yasuyuki Kato, T-4
Brian Munsky, CCS-3/B-DO

Honorable Mention
John Carpenter, MST-6

FY11
Tanmoy Das, T-4
Nan Li, MPA-CINT
Nikolai Yampolsky, AOT-HPE

FY10
Shadi Dayeh, MPA-CINT
Cristiano Nisoli, T-4/T-CNLS

Honorable Mention
Juan Duque, C-PCS
Katharine Page, LANSCE-LC

FY09
Stosh Kozimor, C-IIAC
Jian Wang, MST-8
Team
Suzanne "Zoe" Fisher, B-8
Andrey Kovalevsky, B-8

FY08
Chris Graves, MPA-10

FY07
Michael Demkowicz, MST-8
Ki-Yong Kim, MPA-CINT
Pinaki Sengupta, MPA-NHMFL/T-11

FY06
Tuson Park, MPA-10
Rolando Somma, P-21/T-13

FY05
David Chavez, DX-2
Richard Schaller, C-PCS
Lin Shao, MPA-CINT

FY04
Gary Baker, C-SIC
Han Htoon, C-PCS

FY03
Mark Boulay, P-23
Jian Xin Zhu, T-11
Team
Matt Hastings, T-CNLS
Charles Reichhardt, T-CNLS

FY02
My Hang Huynh, C-SIC
Sergey Trudolyubov, NIS-2

FY01
Jackie Kiplinger, C-SIC
EddyTimmermans,T-4
Team
Jennifer Hollingsworth, C-PCS
Alexander Mikhailovski, C-PCS

Postdoctoral Distinguished Mentor Award

Established in 2010, this award recognizes the positive contributions that a mentor makes during a postdoctoral researcher's appointment. The mentor's accomplishments often make a difference in the postdoc's life, going the extra mile beyond science, such as career development, and make a positive impact on a number of postdocs.

FY17 Postdoctoral Distinguished Mentor Award Recipients

Misha Chertkov, T-4

Andrew Sutton, C-IIAC

James (Jim) Ten Cate, EES-17

Carlos Tome, MST-8

Steve Yarbro, NSEC

Daniel Livescu, CCS-2, Frank Harlow Award

Misha Chertkov, T-4

Misha Chertkov was nominated for his ability to create a unique atmosphere for research among the group of postdocs and students that he mentors. The collaboration is characterized as friendly yet critical discourse, in which everyone is encouraged to share or criticize ideas. Misha always strives to provide freedom to his postdocs to explore new independent directions and treats them as colleagues. His breadth of knowledge in diverse theoretical areas has attracted and connected researchers across fields and produced impactful results in both classical computer science and practical engineering. He strongly encourages his postdocs, or for that matter anyone seeking his advice, to discuss with researchers in diverse areas to get fresh insights into a problem. By insisting on keeping discussion going, he encourages people struggling to move past initial misunderstandings and clashing terminology to develop true interdisciplinary collaboration. By arranging frequent visits by professors and students from across the world and encouraging participation at conferences, Misha has promoted the work of his mentees both nationally and internationally.

As a former postdoc noted, “Misha’s success at achieving a delicate balance between guidance and freedom is instrumental in helping his mentees grow as independent and successful researchers”. His friendly demeanor, commitment to basic research and caring nature are highlights of a commendable mentoring career. Current and former postdocs are delighted to see him recognized for his positive and lasting impact, both on their research experience at the lab and on their future careers.

Misha was nominated for this award by Deka Deepjyoti and Roald Line.

Andrew Sutton, C-IIAC

Andrew Sutton was nominated for his selfless dedication to postdoc professional and personal development, as well as positive contributions to the Laboratory community as a whole. He has a genuine excitement for seeing postdocs succeed at the Laboratory and is the epitome of a leader and mentor. Andrew constantly strives to provide an environment where postdocs can thrive scientifically and is always available to talk about research, discuss problems and bounce ideas back and forth to make sure work in the lab is progressing as efficiently as possible. He provides countless opportunities for postdocs to engage in career networking; ranging from introductions between members of separate divisions at the Lab to face-to-face meetings with program managers across offices within the Department of Energy. Aside from his exceptional mentoring, Andrew goes above and beyond to help postdocs acclimate to life in Los Alamos, and always checks in on their happiness with work and life. Andrew's mentoring does not stop with postdocs he has directly worked with; he takes time to help postdocs across the Laboratory to provide guidance on career advancement both at the Laboratory and externally. The postdocs and students who have been mentored by Andrew are thrilled to see him receive this honor in recognition of his passion for helping others to mature into valued and independent scientists.

Andrew was nominated for this award by Cameron Moore.

James (Jim) Ten Cate, EES-17

James (Jim) Ten Cate was nominated because of his sincere dedication to science, LANL, and his research team. Jim has been at the Lab for over 20 years, and he has had a significant impact and long lasting relationships with his students and postdocs, with several of them still seeking his advice long after they were postdocs. Not only does Jim show concern for the progress of his team, he also makes every effort to connect them to others throughout the Lab, often taking the time to tour people around the Laboratory and arrange networking opportunities. He also encourages people to become connected to the local community, as he is involved in a number of groups including High School robotics club and the Concert Association. Jim is an exceptional scientist and has made significant contributions to the area of nonlinear elasticity. Consequently, he is an invaluable resource for developing ideas and ensuring the scientific integrity of our team. Probably the best thing about Jim, is despite his significant contributions to the Laboratory and science, he never considers himself above anyone because of their lack of seniority. He is happy to give a postdoc as much of his time as a senior staff, and he takes a special joy for brewing an espresso drink for whoever happens to walk into the break room.

Jim was nominated for this award by Carly Donahue.

Carlos Tome, MST-8

Carlos Tomé was nominated for his extraordinary commitment, effectiveness, persistence, guidance and advice to his postdocs, students and early career scientists over 20 years at the Laboratory. He is an outstanding leader and extraordinary scientist in the field of crystal plasticity. He always recognizes and acknowledges his mentees hard work and treats them with dignity. He encourages his mentees to think independently, propose innovative research ideas, and also he facilitates a platform to collaborate with peer-colleagues within and outside LANL, which he believes is an important asset for professional development. He considers improving his postdocs' careers by guiding and motivating them to become successful, independent researchers as one of his major responsibilities. All of his mentees (more than 40 scholars) are pursuing successful professional careers worldwide that demonstrates the tremendous effort and deep interest that he puts in shaping the careers of his postdocs. Everyone admires Carlos for his exceptional traits like his passion for science, hard work, and professionalism in handling his mentees. All of the mentees who have had the pleasure of working with Carlos are delighted to see him rewarded for the extraordinary contribution he has made to their professional and personal career development.

Carlos was nominated for this award by Arul Kumar Mariyappan, Wei Wen, and Hareesh Tummala.

Steve Yarbro, NSEC

Steve Yarbro was nominated for his devotion to developing postdocs into independent researchers with successful, long-term trajectories at and beyond the Laboratory. Steve has a unique talent for identifying the strengths of others and fostering an interdisciplinary environment in which every member's talents are utilized. He has a great appreciation for diversity in technical backgrounds and ensures success of postdocs in contributing to new research areas by dedicating his time teaching them the fundamentals of chemical engineering and actinide processing, while also asking postdocs to teach him their expertise. He encourages postdocs to be involved in all branches of the Laboratory's programs, further illustrating his commitment to developing staff members able to contribute across all aspects of the Laboratory mission. He also prepares postdocs for successful transition to staff by taking the time to educate them on broader aspects of projects, such as key objectives of funding sources, to provide a solid foundation for proposal writing. Steve's mentorship reaches beyond technical development. He supports postdoc professional development by encouraging conference attendance and publication of research. Dissemination is also prevalent within the Lab as he never hesitates to give recognition for the work done by his team members, postdocs and students in particular. Steve's genuine enthusiasm for every individual's contribution instills a passion that elevates personal investment and quality of work. Finally, Steve is always a thoughtful, compassionate leader. He teaches leadership by example, always carefully considering and valuing different technical points of view. Steve's sincere hope is to instill a passion for the innovative mission-driven R&D that is essential to our success as a national security Laboratory and his dedication to this mission is evident in his whole-hearted mentorship.

Steve was nominated for this award by Garrison Stevens.

Daniel Livescu, CCS-2

Frank Harlow Postdoctoral Distinguished Mentor Award Recipient

In 2016 a mentor award was created in memory of Senior Laboratory Fellow and Los Alamos Medal recipient, Frank Harlow. This award recognizes outstanding mentorship of postdocs in the field of Computational Fluid Dynamics, the specific field in which Dr. Harlow mentored many students, postdocs, and staff having a positive, long lasting impact on their careers. Dr. Daniel Livescu is the first recipient of this award.

Dr. Livescu was nominated for his outstanding commitment to postdoc career development and the lasting impact his support has had on their long-term career success. He shows strong sensitivity to the academic, professional goals and needs of postdocs. Daniel's approach includes involving the postdocs on research projects that address important problems, thus allowing the opportunity for postdocs to produce publications that have a true impact on the Computational Fluid Dynamics community. Furthermore, Dr. Livescu allows the postdocs growth and networking opportunities while providing active support and guidance. These opportunities open doors to potential lifelong connections and career paths.

Daniel was nominated for this award by Don Daniel and Peter Brady.

Previous Award Recipients

FY 16
Bill Inkret, C-NR
Christoph Junghans, CCS-7
Turab Lookman, T-4
Joe Thompson, MPA-CMMS

FY15
Bette Korber, T-6
Francois Hemez, XTD-IDA
Filip Ronning, MPA-CMMS

FY14
Thomas Leitner, T-6
Sergei Tretiak, T-1
Blas Pedro Uberuaga, MST-8

FY13
Cristian Batista, T-4/T-CNLS
Irene Beyerlein, T-3
Jackie Kiplinger, MPA-11
Team
Eva Birnbaum, C-IIAC
Meiring Nortier, C-IIAC

FY12
Amit Misra, MPA-CINT
Duncan MacArthur, NEN-1
Babetta Marrone, B-DO
Rashi Iyer, D-3
Bruce Carlsen, AOT-HPE

FY11
Christine Anderson-Cook, CCS-6
Andrew Dattelbaum, MPA-MSID
Rico Del Sesto, MPA-MC
Jen Martinez, MPA-CINT
David Moulton, T-5
Tom Picraux, MPA-CINT

FY10
Tom Intrator, P-24
Quanxi Jia, MPA-CINT
Jim Werner, MPA-CINT

All photos courtesy of Mike Pierce.